

REMARKS

Petition for Extension of Time Under 37 CFR 1.136(a)

It is hereby requested that the term to respond to the Examiner's Action of November 27, 2008 be extended three months, from February 27, 2008 to May 27, 2008.

The Commissioner is hereby authorized to charge the extension fee and any additional fees associated with this communication to Deposit Account No. 50-4364.

In the Office Action, the Examiner indicated that claims 1 through 10 are pending in the application and the Examiner rejected all of the claims.

Claim Amendments

Claim 1 has been amended to explicitly recite a method in which only certain functions in the DLL are accessible directly by the executable program. In contrast, other functions (those held in the "extension part") must be accessed indirectly via a further library. This arrangement is shown schematically in Figures 4 and 5 of the application.

References to the supporting disclosure made herein refer to the published PCT application. Support for the wording of amended claim 1 can be found in the text of the published PCT application as follows:

Lines 2-4: implicit in the nature of a DLL. See also page 3, first full paragraph and page 3, final paragraph.

Lines 7-8: page 9, final paragraph and page 11, second paragraph.

Lines 9-10: page 9, fourth paragraph; paragraph bridging pages 9 and 10 (“the application is permitted to use the Original Functions 1 to 5 by exporting them directly from the platform DLL”); and page 11, second paragraph.

Lines 11-12: paragraph bridging pages 9 and 10 (“these additional ordinals 6 and 7 are not linked to directly by the application but via the extension DLL”) and page 11, third paragraph.

Rejection of under 35 U.S.C. § 103

On page 2 of the Office Action, the Examiner rejected claims 1-10 under 35 U.S.C. §103(a) as being unpatentable over IBM Technical Disclosure (“Forwarder Dynamic Link Libraries as a Method for Servicing Software,” IBM Technical Disclosure Bulletin, IBM Corp., New York, US, vol. 38, no. 11, November 1, 1995, pps. 407-408, XP000547408 ISSN: 0018-, hereinafter “IBM”)

The Present Invention

The present invention discloses a dynamic link library (DLL) in a computing device provided in the form of a first part and an extension part. The first part has selected entry point ordinals by which an application program may link to first functions. The application program may only link to further functions via the extension part of the DLL.

**“Forwarder Dynamic Link Libraries as a Method for Servicing Software,”
IBM Technical Disclosure Bulletin (“IBM”)**

“Forwarder Dynamic Link Libraries as a Method for Servicing Software,” IBM Technical Disclosure Bulletin (hereinafter “IBM”) discloses providing software enhancements or corrections to forwarder DLLs. “Forwarder DLLs” are used to forward calls from executable programs to primary code in an operating system, in order to implement changes to the code. In accordance with the described method, once corrective code has been introduced into forwarder DLLs, some calls by an application into a forwarder DLL are still forwarded, some cause the execution of the new code, and some execute the new code as well as being forwarded (see page 408, first paragraph).

As illustrated in Figures 1 and 2 of IBM, no calls may be passed directly from an executing program to a primary DLL: all are passed first to a forwarder DLL, and then on to the primary code. The IBM document therefore does not disclose the concept of permitting direct access only to certain functions in a DLL, and requiring indirect linking to others of the functions.

The Examiner Has Not Established a Prima Facie Case of Obviousness

As set forth in the MPEP:

To support a rejection under 35 U.S.C. §103, a reason, suggestion, or motivation to lead an inventor to combine two or more references must be found. *Pro-Mold and Tool Co. v. Great Lakes Plastics Inc.*, 37 U.S.P.Q.2d 1627, 1629 (Fed.Cir. 1996). The Examiner has not met his burden in establishing a reason, suggestion, or motivation for combining the cited references.

As noted above, the present invention involves (and claims) the steps of conceptually splitting the DLL into at least two parts - a first part and an extension part - and enabling direct access by an executable program only to those functions in the first part. According to the

present claimed invention, some calls from an executable program may be passed directly to the functions in the DLL (which can be loosely considered as comparable to the Primary DLL of the IBM document) while others must be passed indirectly, via a further library (which can be considered loosely comparable to the Forwarders of the IBM document), to the DLL.

This step of distinguishing between functions of a first type (those in the first part of the DLL) and functions of a second type (those in the extension part), and permitting direct access only to the first type of functions in the DLL, is an inventive concept of the present invention. By controlling direct access in the claimed manner, software developers can enable computing systems to be significantly more flexible than was previously the case: DLLs may be upgraded to include new functions, for supporting new applications or for enabling the systems to run on new hardware, in such a way that modifications only need to be made in respect of functions held in the extension part of the DLL. There is then no need for re-writes of the executable program or the fundamental functions held in the first part of the DLL. Instead, a more efficient modification process is enabled whereby the only changes required are the addition of new functions to the extension part, and re-links in the extension library in order to point to the address locations of the newly added functions. (See page 11, final paragraph of the specification as published.)

The advantages of implementing the present invention are significant – see the discussion of problems associated with prior art solutions at page 4, final two paragraphs, and page 6, second paragraph to page 9, second paragraph.

With the benefit of hindsight, the present invention might be characterized as a relatively simple and elegant solution to the known problem of reducing the effort required to update DLLs. However, the IBM document provides the skilled artisan with no reason or motivation to re-

design a DLL in this way. It does not envisage the concept of controlling direct access to functions in a DLL, and there is consequently no mention of any practical advantages that may flow from implementing such control, nor any suggestion of how such control could be practically implemented. Instead, the IBM document only discloses accessing functions in a DLL indirectly via Forwarder DLLs: it never contemplates a combination of both direct and indirect access in relation to functions within the same library. The present invention thus involves a considerable modification of the process known from the IBM document for accessing functions in DLLs, and represents a significant non-obvious contribution to a skilled artisan.

Contrary to the examiner's assertion in point 6 of the office action, Applicant submits that the invention as claimed involves far more than a mere ordering of DLLs: it involves the *restructuring* of a DLL, and represents a fundamental shift in the approach to enabling access to functions within a DLL. As such, Applicant submits that the invention would not have been obvious in view of the IBM document.

Accordingly, the Examiner is respectfully requested to reconsider and withdraw the rejection of claims 1-10 under 35 USC §103.

Conclusion

The present invention is not taught or suggested by the prior art. Accordingly, the Examiner is respectfully requested to reconsider and withdraw the rejection of the claims. An early Notice of Allowance is earnestly solicited.

The Commissioner is hereby authorized to charge the extension fee and any additional fees associated with this communication to Deposit Account No. 50-4364.

Respectfully submitted

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Date

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